# STATE OF NORTH CAROLINA DEPARTMENT OF ENVIRONMENT, HEALTH, AND NATURAL RESOURCES DIVISION OF WASTE MANAGEMENT

# PERMIT TO OPERATE A SEPTAGE LAND APPLICATION SITE

Roy E. Etheridge TNT Services, Inc. P.O. Box 296 Powells Point, NC 27966

is hereby issued a permit to operate Septage Land Application Site #SLAS-27-06 on US 158 in Currituck County at approximate position 36.1542° W latitude and -75.8450° N longitude. The site is to be operated in accordance with 15A NCAC 13B .0800 Septage Management, the information stated in the approved application, and the conditions of this permit. The unauthorized disposal of any liquid or solid wastes other than those specified in the conditions of this permit will be considered a violation of the conditions of this permit. Failure to comply with the conditions of this permit may result in permit suspension, permit revocation, action for injunctive relief, administrative penalties, or other remedies as provided in G.S. 130A, Article 1., Part 2.

This permit shall be reviewed annually to determine if soil test results and management activities are in compliance with the Septage Management Rules and the conditions of this permit. Modifications, where necessary, shall be made in accordance with rules in affect at the time of review.

Date Issued  $\frac{9/2s/o8}{}$ 

Michael E. Scott, Branch Head Solid Waste Section

Page 2 of 3

Operator: Roy E. Etheridge

SLAS # 27-06 County: Currituck

#### Permit Conditions:

- 1. This permit shall become voidable if the soils fail to adequately assimilate the septage and shall be rescinded unless the site is maintained and operated in a manner which will protect the assigned water quality standards of the surface waters and ground waters.
- 2. This site shall be operated and maintained in accordance with the nutrient management plan submitted by Roy E. Etheridge and approved by the Division. The 4.0-acre site shall be split into two fields labeled as Field #1 and Field #2. The fields have been established in hybrid bermudagrass. Areas that develop in less than 80% cover in bermudagrass will be resprigged at a rate of 40 bu/ac in March or April. In September or October of each year, all fields will be overseeded with ryegrass at a rate of approximately 15 lbs/ac (drilled). The bermudagrass shall be cut and baled as hay whenever it reaches approximately 12 inches in height or roughly every 4 weeks beginning in late May. At least 3 bermudagrass harvests shall be made each year. The ryegrass will be cut as hay and baled in late March and late April of each year. The 30-day waiting period between the last application of septage and the harvest of a crop shall be met by alternating septage applications between the two fields. All discharges shall be at locations on the site consistent with the crop rotation in the approved plan.
- 3. The site shall be operated in accordance with the erosion and runoff control plan submitted by Roy E. Etheridge and approved by the Division. Any site improvements noted in the plan must be installed within 30 days of plan approval. Erosion and runoff control measures shall be maintained in such a manner as to prevent migration of wastes off of the designated waste receiving site. The installation of groundwater monitoring wells may be required.
- 4. The issuance of this permit does not preclude the Permittee from complying with any and all statutes, rules, regulations, or ordinances which may be imposed by other government agencies (local, state, and federal) which have jurisdiction. It is the responsibility of the Permittee to be in compliance with the requirements of 40 CFR 503.
- 5. This permit may be modified or reissued to incorporate any conditions, limitations and monitoring requirements the Division of Solid Waste Management deems necessary to adequately protect the environment and public health.
- 6. This site is only permitted for the land application of portable toilet waste. Domestic septage pH shall be raised to 12 or higher by alkali addition and, without the addition of additional alkali, shall remain at pH 12 or higher for 30 minutes prior to land application.
- 7. This site contains approximately 4 acres that are available for septage land application. The maximum annual application rate shall be 50,000 gallons per acre per year, for a total maximum annual application rate of 200,000 gallons. This application rate assumes equal septage distribution, on an annual basis, over the permitted area.
- 8. An approved above ground septage detention system with a minimum design capacity of 4,000 gallons shall be available prior to operation of this site unless an approved wastewater treatment plant is available for use during periods of adverse weather. The storage capacity may be adjusted if it is demonstrated during the operation of the site that this volume of storage is inappropriate.

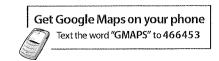
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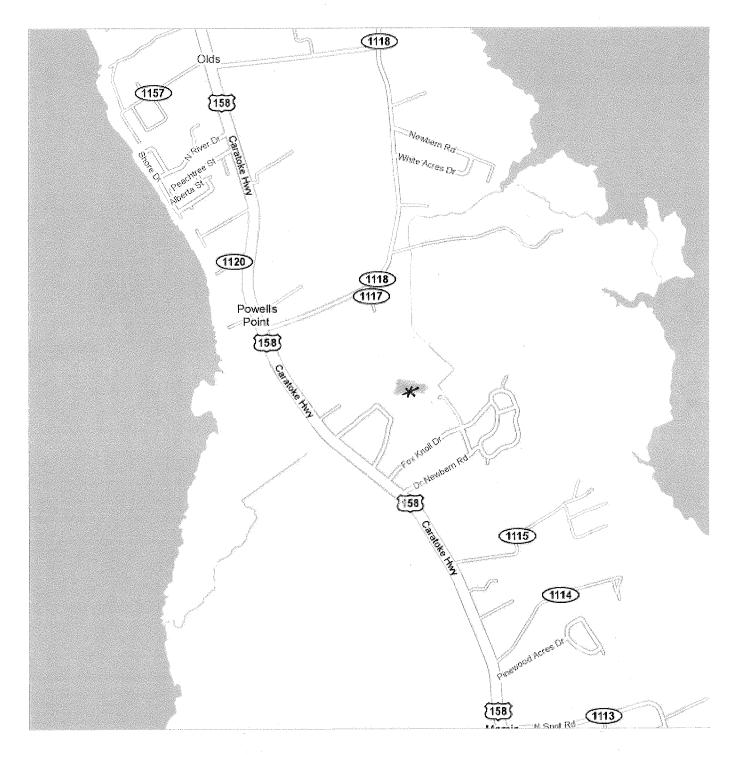
Operator: Roy E. Etheridge

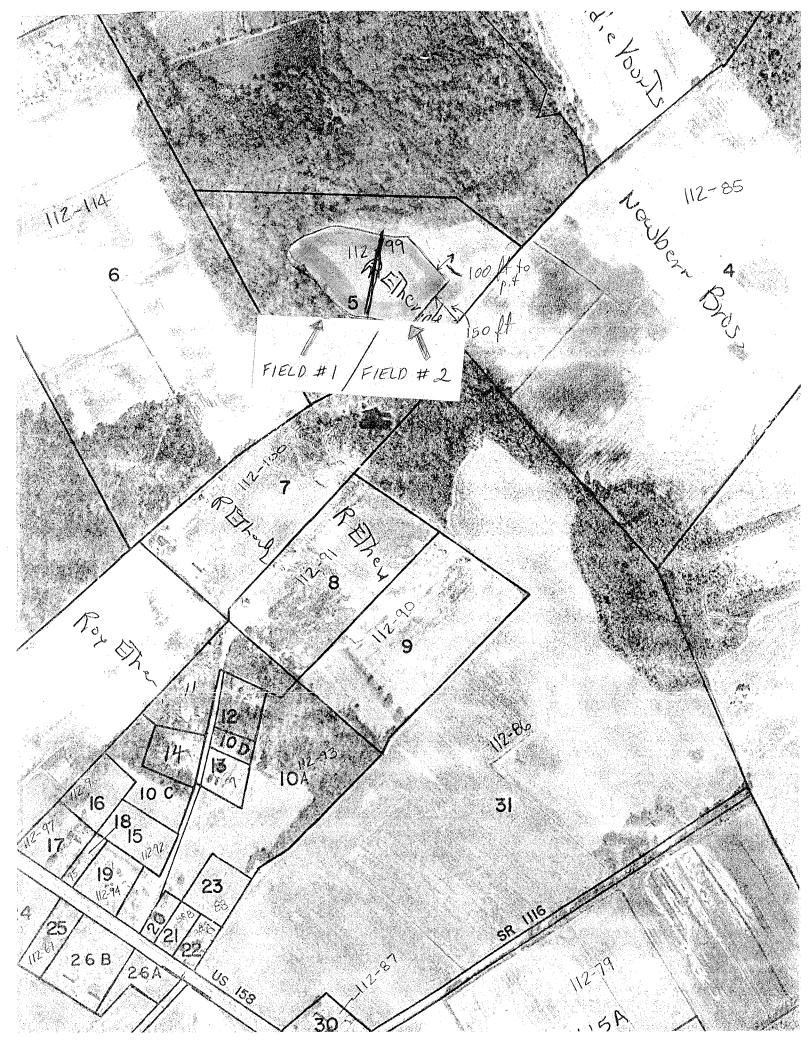
SLAS # 27-06 County: Currituck

- 9. Only the area designated on the attached site map(s) shall be utilized for septage disposal. Each load of septage applied at the site shall be distributed from a moving vehicle in such a manner as to have no standing water when the discharge is complete. Septage shall not be applied during periods of high soil moisture.
- 10. This permit shall become voidable unless the land application activities are carried out in accordance with the conditions of this permit and in the manner approved by this Division. No one other than the permittee shall discharge septage at this site without prior appropriate notification and written approval of the Division of Solid Waste.
- 11. Prior to any transfer of this land, a notice shall be given to the new owner that gives full details of the materials applied or incorporated at this site. The Division shall be notified prior to site closure.
- 12. This permit shall expire September 24, 2012. Modifications, when necessary, shall be made in accordance with the rules in effect at the time of renewal. An application for permit renewal shall be submitted at least ninety (90) days prior to the permit renewal date. This permit is non-transferable. A septage application log for the period of time this permit was valid shall be submitted along with an application for permit renewal or modification. The information required in the log is described in Rule 15A NCAC 13B .0822 (e) (1) of the NC Septage Management Rules and 40 CFR Part 503.17(b) of the Federal Register. This permit is non-transferable.
- 13. Records shall be kept in accordance with 40 CFR 503.17(b). These records shall be made available to a representative of the Division of Solid Waste Management upon request.
- 14. Any duly authorized officer, employee, or representative of the Division of Solid Waste Management may, upon presentation of credentials, enter and inspect any property, premises, or place on or related to the disposal site and facility at any reasonable time for the purpose of determining compliance with this permit; may inspect or copy any records that must be kept under the conditions of this permit; or may obtain samples of groundwater, surface water, or leachate.
- 15. Field separations in the nutrient management plan and all pertinent setbacks shall be clearly located on the site.
- 16. The areas which can be used for land application of septage shall be maintained at least 500 feet from any existing wells, residences, places of business, or places of public assembly. Septage shall not be disposed of within 50 feet of any property line, 200 feet of a pond or within 100 feet of any ditch.











## North Carolina Department of Environment and Natural Resources

Dexter R. Matthews, Director

### Division of Waste Management

Michael F. Easley, Governor William G. Ross Jr., Secretary

September 26, 2008

Mr. Roy E. Etheridge TNT Services, Inc. PO Box 296 Powells Point, NC 27966

RE: SLAS-27-06 and SDTF-27-06 permit renewals

TNT Services, Inc.

Hwy 158 in Currituck County

Dear Mr. Etheridge:

The NC Division of Waste Management has reviewed your application for renewal of septage land application site permit, SLAS-27-06, in Currituck County. Your application has been approved in accordance with NC Septage Management Rules and your permit, SLAS-27-06, is enclosed. When communicating to the Division about this permit, please refer to it as "SLAS-27-06".

Please read all of your permit conditions carefully. Your nutrient management and soil erosion and runoff control plans have been included in your permit's conditions. In particular, pay close attention to **Permit Conditions 2**, **6**, **7**, **and 12**. Condition 2 incorporates specific details from your nutrient management plan. Condition 6 states that you are only allowed to apply portable toilet waste to the land application site. Applications of any other type of septage to this site would be in violation of your permit. If you want to apply other types of septage, you will need to ask for a modification of your current permit. Condition 7 states that your maximum annual application amount is 200,000 gallons. Follow your nutrient management plan for maximum monthly amounts. And finally, Condition 12, states that this permit is set to expire on **September 24, 2012** and that an application for permit renewal and your septage application logs should be submitted at least ninety (90) days prior to the expiration of your permit.

The Division has also reviewed your application to renew permit, SDTF-27-06, to operation a septage detention and treatment facility in Currituck County. Your application to use one 3,000 gallon steel tank as a detention tank for storage of septage has been approved. Please find also enclosed your permit for the detention site, SDTF-27-06. Note that permit SDTF-27-06 covers the operation of your detention tank and is different from the septage land application site permit, SLAS-27-06. Again, read all permit conditions carefully.

Mr. Etheridge September 26, 2008 Page 2 of 2

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Remember that permit SLAS-27-06 covers your septage land application site and permit SDTF-27-06 covers your septage detention site. To avoid violations to the NC Septage Management Rules and your permit, please pay close attention to the enclosed permits. Violations to the NC Septage Management Rules or these permits could subject you to administrative penalties of up to \$15,000 per violation per day. If you have any questions concerning your permits or septage in general, please do not hesitate to contact me at (919) 508-8515.

Sincerely,

Chester R. Cobb, Soil Scientist

Composting & Land Application Branch

Enclosures

CC.

Central Files

Chester Cobb, Raleigh Central Office Currituck County Health Department

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# APPLICATION FOR A PERMIT TO OPERATE A SEPTAGE LAND APPLICATION SITE

North Carolina Department of Environment and Natural Resources Division of Waste Management – Solid Waste Section 401 Oberlin Rd., Ste. 150, Raleigh, NC 27605

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Sif	te and Operator Info	ormation			
1.	Applicant Address	TNT Services Inc PO Box 296 Powells Point, N	Roy Etherologe	Comme	
	Phone	252.261.3073		The state of the s	
2.	Contact person fo Title or position Address	r site operation (if different fro	om applicant): Phone		
	Landowner Address	Po Boy 296 Powells Point, N	C 27966		
4.	Site Location: Directions to site:	County <u>Currituck</u> OFF Hwy 158 Point, NC 27966	State Road Number_ to South Ferber	lane	
5	Indicate whether request is: new renewal modification				
	mail a manual rono	wal or modification, provide th it number: <u>S/ As 27-o</u> 6	ne following information:		
6	. Number of acres	meeting the requirements of t	he NC Septage Managemen	t Rules: <u>4.0</u> acres.	
7	. Substances other than septage or grease trap pumpings previously disposed of on the site:  (a) None, or (b) Attach a list indicating other substances, the amounts discharged, and the dates of discharge.				
8	landowner (if the	starized landowner authorizati permit applicant does not own wner authorization form.	on to operate a septage disp n the property). <i>If a corpora</i>	osal site signed by the ation owns the land use a	
_9	Attach site evalua prepared the rep	ation report, including aerial pt ort.	notograph and soil analysis r	esults, unless the Division	
4	0. Attach a vicinity	map (county road map showi	ng site location).		
(	over)				

in one management information:				
The following information shall be included with the application form:				
<ol> <li>Nutrient Management Plan</li> <li>Soil Erosion and Runoff Control Plan</li> </ol>				
3. Alternative plan for disposal (detention facility permit number or wastewater treatment plant authorization):				
<ul> <li>4. Types of septage proposed to be discharged at the site (check all that apply):</li> <li>(a) Domestic septage pumped from septic tanks</li></ul>				
5. Proposed treatment method of each type of septage to be land applied (use additional paper to explain if necessary): Hydrafed lime is added to stablize and raise to land application.				
6. Proposed method of applying septage to land, including septage distribution plan if required * (use additional paper to explain if necessary): Septage will be discharged from moving truck and spread evenly over the land.				
7. Demonstration from the appropriate state or federal government agency that the land application complies with the Endangered Species Law ** or if any part of the site specified is not agricultularly (use additional paper to explain if necessary):				
Site is agricultural land.				
III. Certification				
I horoby as dre u				
<ol> <li>I hereby certify that:</li> <li>The information provided on this application is true, complete, and correct to the best of my knowledge.</li> <li>I have read and understand the N.C. Septage Management Rules, and</li> <li>I am aware of the potential consequences, including penalties and permit revocation, for failing to follow all applicable rules and the conditions of a Septage Land Application Site permit.</li> </ol>				
A (thing) 2/1/08				
Signature*** Date				
1) Ener. (19a 2/1/08				
print name Title				
Note: This application will not be reviewed until all parts of the application are complete.  * Refer to Section .0821(e) of the NC Septage Management Rules.  ** Refer to Section .0821(g) of the NC Septage Management Rules.  ***Signature of company official required.  h:\classplage\text{Vorms\applicat\slass per-2001}				

### Draft February 11, 1998

### Roy Etheridge Currituck County

# NUTRIENT MANAGEMENT PLAN FOR SEPTAGE APPLICATION TO BERMUDAGRASS AND ANNUAL FRYGRASS

### A. General Information

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- 1. Periodic sampling of the septage is not being conducted at this time.
- 2. Total permitted site is 4.0 acres. The site will be divided equally into two sections with them being designated as Field one (1) and two (2) so that areas can be alternated between cutting and application of septage.
- 3. The dominant soil series at this site is Wando loamy fine sand.
- 4. Septage will not be applied where the site is untrafficable. (Untrafficable is defined as a soil will allow trucks to leave a depression in sod greater than 3 inches in depth).
- 5. All nitrogen recommendations for forages will be 75% of the realistic yield expectation nitrogen rate should the forage be only grazed.
- 6. Septage storage shall be provided to account for the average volume of septage pumped per week, or an alternative plan, such as disposal at a waste treatment plant, should be in place.
- 7. Leaks and spills at the drum will be dug up and spread onto the disposal site. Groundwater will be tested for contamination. If any found, wells will be drilled and pumped onto the disposal site.
- B. Crops to be grown and approximate planting times.
  - 1. Establishment of current crop (planted in 1997)

Field 1 and 2 is currently established (at rate of 40 bushels per acre in March of 1997) with hybrid bermudagrass. As a winter crop, annual ryegrass is currently overseeded onto Field 1 and 2 (at rate of 15 pounds per acre with a drill in late December of 1997).

### 2. Establishment of crops for 1998 and subsequent years

Fields 1 and 2, which have hybrid bermuda grass established as a summer crop, will be overseeded with annual reygrass for a winter crop. It will be seeded at the rate of 15 pounds per acre by a drill or broadcasted at a rate of 20 pounds to 30-40 pounds per acre during the months of September through October for the ryegrass. If the bermudagrass stand falls below 80%, the bare spots will be re-sprigged in March or April at a rate of 40 bushels per acre.

### C. Nitrogen needs for crops grown:

R.Y.E. = Realistic Yield Expectations
N Appl. Rate = Suggested N application rate based on R.Y.E.

Crop (out for hay) R.Y.E. N. Appl. Rate Lbs. N\acre

Hybrid Bermudagrass 4.5 tons\a 40 lbs N/dry ton 180 lbs N/a

Annual Ryegrass 3.0 tons/a 40 lbs N/dry ton 120 lbs N/a

D. Relative application rates (per acre) for field

MONTH FIELD

	# 1	# 2
	was an analysis of the second	
January	Low	Low
February	Low	Low
March	None	Medium
April	High	None
May	None	Medium
June	High	None
July	None	High
August	Medium	None
September	None	Low
October	Low	None
November	Low	Low
December	Low	Low

None = 0 gallons; Low = 5,000 gallons; Medium = 10,000 gallons; High = 15000 gallons. Note: Cumulative application rate is not to exceed the permitted rate.

### E. Application Method

The preceding information is based on septage being evenly applied over the entire site with a hose attached to the pumper.

## F. Crop Management and Additional Fertility Requirements

For the hybrid bermudagrass, do not apply lime because of the lime supplied by the stablized septage (see note below). Apply 100 pounds of 0-20-20 per acre prior to planting to help the crop to establish itself unless the report from the soil test indicates that nutrient levels are sufficient. The remainder of the nutrients will be supplied by the septage, which will be surface applied to the crop during the growing season, If higher levels of production by the crop are desired, then supplemental nutrients may; be needed. Incorporation of the fertilizer prior to planting the hybrid bermudasgrass with a disk and \or chisel plow will suffice for preparing the seed bed. Sprigs can be broadcasted and lightly disked in or planted in a row.

In September, clip the hybrid bermudagrass to a height of 1 inch or less. Prior to seeding the annual ryegrass, apply 200 pounds of 10-10-10 per acre unles, otherwise indicated by the soil test report. This fertilizer is needed as a starter and only 20 pounds of nitrogen per acre s negligible when considering the cumulative net requirement of the two crops. Overseeding may be accomplished by using a sod-seeder or a grain drill. A light disking may be required to seeding (especially since septage application equipment may compact the soil) with a grain drill or broadcast seeder.

Note: Soil samples should be taken annually to monitor the pH of the soil as well as nutrients in the soil. Since most waste materials do not contain optimum nutrient balance required for each crop and field, it is important to check the soil recommendations and, if necessary, supplement with commercial fertilizer. The pH of the soil at the site will be higher than required for most crops because of the addition of lime stabilized septage. There should be no need for additional lime to meet the needs of the crops.

### G: Harvest of the crops an their use.

- 1. The hybrid bermudagrass will be cut as hay and baled whenever it reaches approximately 12 inches in height or roughly every 4 weeks beginning in late May with Field 1. Each field will be harvested 3 times.
- 2. The annual ryegrass will be cut in late March and late April from Field 1 and 2, respectively.

- A 30 day waiting period must be observed between the last application of septage and harvested. Beginning about the first of March each year, septage will be applied strictly to Field 2 while the ryegrass on Field 1 is undisturbed for 30 days. After 30 days, the ryegrass on Field 1 will be harvested and septage application will be switched to Field 1. After an additional 30 days, late-April, the annual ryegrass will be harvested from Field 2 and septage application switched to Field 2. After additional 30 days, late-May, the bermudagrass will be harvested from Field 1 and septage application switched to Field 1. By early-June, a rotation is established, which can cycle every 30 days between bermudagrass harvests. By the end of October, annual ryegrass will have been planted and the entire site will be available for septage application until the end of February the following year.
- 4. The hay will be used for some purpose off of the permitted site.

#### SOIL EROSION AND RUNOFF CONTROL PLAN

Given that slopes on this site do not exceed five percent, a 50 foot buffer should suffice to prevent septage waste from migrating off the fields. The buffers will be the same as than in the application area. (More severe site conditions could require that soil erosion structures be installed before septage can be applied.

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